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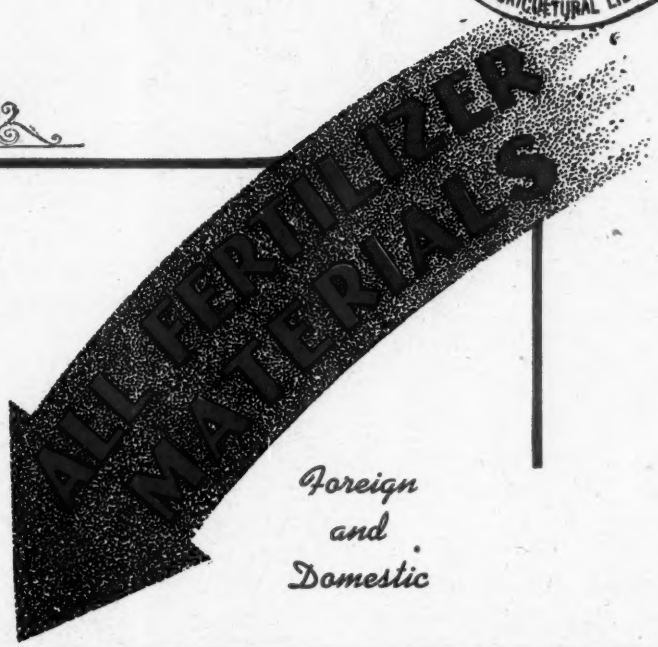

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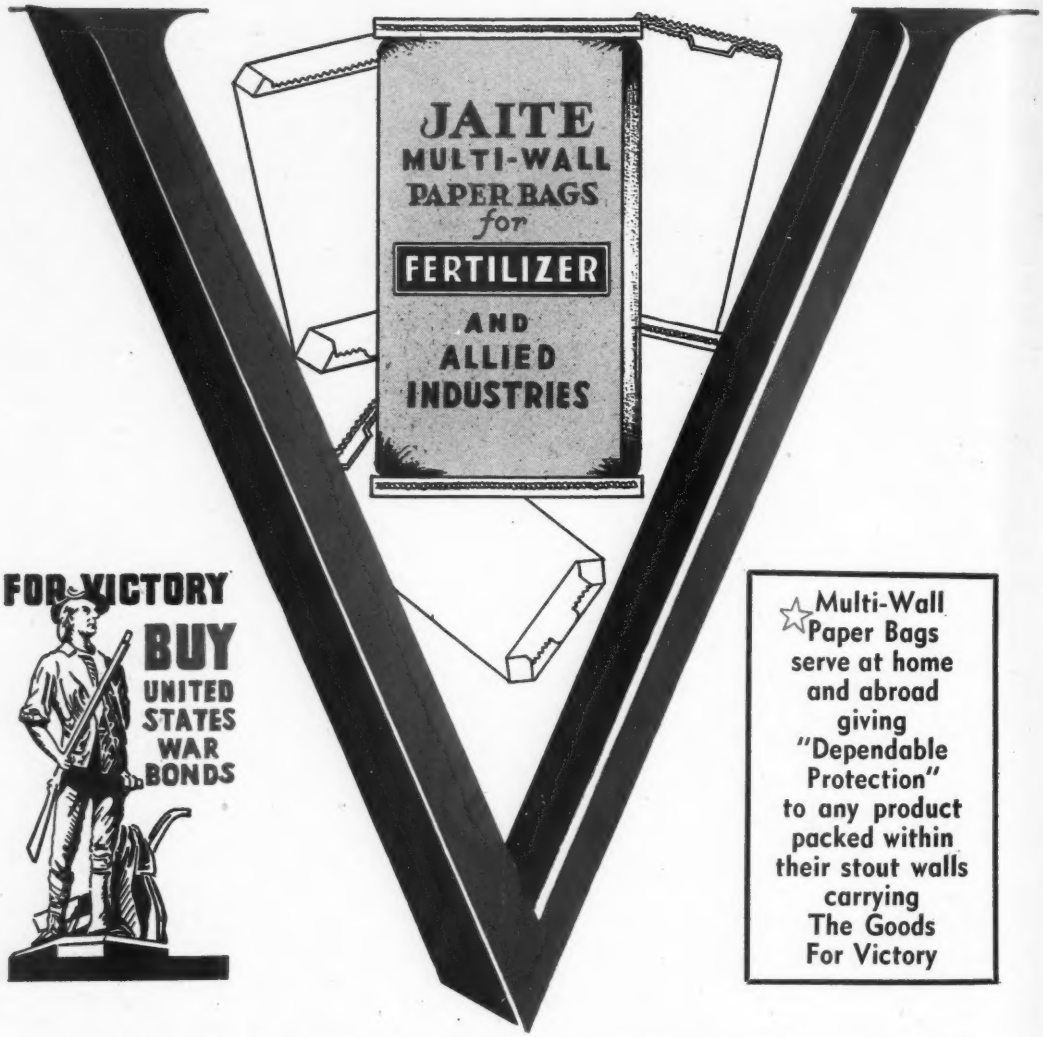

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See page 27

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Vol. 102 MAY 19, 1945 No. 10

National Fertilizer Association Amended By-Laws at Annual Meeting

Paid President Authorized. Board of Directors Empowered to Appoint District Committees When Deemed Necessary. New Officers and Directors Elected.

TO COMPLY with legal requirements of its charter, a brief meeting of members of the National Fertilizer Association was held at the Mayflower Hotel in Washington, D. C., on May 15th. Scheduled for May 14th, the Board of Directors extended its preliminary deliberations on the momentous changes proposed so that the Association did not meet till May 15th.

Of chief importance was the adoption of the proposed amendments to the By-Laws and Constitution. Amendment to Article VI of the By-Laws makes provision (a) for a paid president having substantially the same executive duties and powers as those now lodged in the Executive Secretary, (b) for a Chairman of the Board of Directors and a Vice-Chairman of the Board of Directors with substantially the same duties and powers that had been lodged in the President and Vice-President, and (c) for the temporary assignment of the duties and powers of the President in case of a vacancy in that office or in case of the President's absence or inability to act.

Amendment to Article IV, in general, eliminates provision for District Committees and specified Standing Committees and lodges in the Board of Directors and the Chairman of the Board authority and power to create from time to time such committees as they may deem necessary.

Other amendments were essential in case the two mentioned were adopted and involves methods of procedure in putting them into effect.

The Association voted an assessment of 3 cents a ton on fertilizers produced by members of the organization and authorized a budget of $175,000 for the activities of the Association.

President H. B. Baylor's report on the current situation in the fertilizer industry was received and incorporated in the minutes of the proceedings. This report is given in full elsewhere in this issue. A resolution of thanks to Mr. Baylor for the valuable services rendered as President of the Association was moved by F. J. Woods and was unanimously and enthusiastically voted.

Directors Elected

Members of the Board of Directors whose terms of office expire in 1945, were re-elected. The Board of Directors, as it now exists, is as follows: (The number in parenthesis given after each name indicates the district in which the member resides.)

TERM EXPIRES 1946

District

F. N. Bridgers (4), Farmers Cotton Oil Co., Wilson, N. C.

W. H. Gordon (2), Chamberlin & Barclay, Inc., Cranbury, N. J.

L. D. Hand (6), Pelham Phosphate Co., P. O. Box 468, Pelham, Ga.

Weller Noble (12), Pacific Guano Co., Second St. at Hearst Ave., Berkeley 2, Calif.

Enos Valliant (3), Dorchester Fertilizer Co., P. O. Lock Box 28, Cambridge, Md.

M. W. Whipple (1), Olds & Whipple, Inc., 168 State St., Hartford 1, Conn.

At Large

M. H. Lockwood (1), Eastern States Farmers' Exchange, 95 Elm St., West Springfield, Mass.

John E. Powell (10), The Smith Agricultural Chemical Co., 618 North Champion Ave., Columbus 16, Ohio.

Louis Ware (10), International Minerals & Chemical Corp., 20 North Wacker Drive, Chicago 6, Ill.

TERM EXPIRES 1947

District

B. H. Brewster, III (3), The Baugh & Sons Co., 25 South Calvert St., Baltimore 2, Md.
S. F. Elwood (10), The Farmers Fertilizer Co., P. O. Box 2002, Columbus 16, Ohio.
R. L. King (6), Georgia Fertilizer Co., Valdosta, Ga.
H. A. Parker (8), Sylacauga Fertilizer Co., Sylacauga, Ala.
C. D. Shallenberger (9), Shreveport Fertilizer Works, P. O. Box 1, Shreveport 80, La.
W. H. Waples (11), Lynden Department Store, Inc., P. O. Drawer 33, Lynden, Wash.
F. J. Woods (7), The Gulf Fertilizer Co., P. O. Box 2721, Tampa 1, Fla.

At Large

Robert S. Cope (6), The Reliance Fertilizer Co., 106 Bay St., East, Savannah, Ga.
George Cushman (2), Long Island Produce & Fertilizer Co., Marcy Ave., Riverhead, N. Y.
Leon H. Davis (9), The Southern Cotton Oil Co., 210 Baronne St., New Orleans 12, La.

TERM EXPIRES 1948

District

H. R. Ringler (10), The Buhner Fertilizer Co., P. O. Box 7, Seymour, Ind.
James W. Dean (8), Knoxville Fertilizer Co., Knoxville 1, Tenn.
George W. Gage (5), Anderson Fertilizer Co., Inc., P. O. Box 138, Anderson, S. C.
N. E. Harman (9), Meridian Fertilizer Factory, Hattiesburg, Miss.
E. S. Russell (1), Old Deerfield Fertilizer Co., South Deerfield, Mass.
Lionel Weil (4), Weil's Fertilizer Works, Goldsboro, N. C.

At Large

H. B. Baylor (10), International Minerals & Chemical Corp., 20 North Wacker Drive, Chicago 6, Ill.
C. T. Frown (10), Federal Chemical Co., Inc., 646 Starks Bldg., Louisville 2, Ky.
John A. Miller (10), Price Chemical Co., Inc., 26th & Maple Sts., Louisville 11, Ky.
C. T. Prindeville (10), Swift & Co., Plant Food Div., Union Stock Yards, Chicago 9, Ill.

New Officers Elected

The paid president authorized by change of By-Laws, is to be selected later. Following the meeting of the Association, the Board of Directors met and announced the following selections:

Chairman, Board of Directors—M. H. Lockwood, Eastern States Farmers Exchange, West Springfield, Mass.

Vice-Chairman of the Board of Directors—F. J. Woods, Gulf Fertilizer Company, Tampa, Fla.

Executive Secretary and Treasurer—D. S. Murph, Washington, D. C., re-elected.

The Association adjourned sine die to meet at the call of the Board of Directors.

Alarming Advances in Farm Land Values

Farm land prices continue to advance, increasing for the year ending March 1, 1945, 11 per cent for the country as a whole and bringing values up 52 per cent above the 1935–39 average.

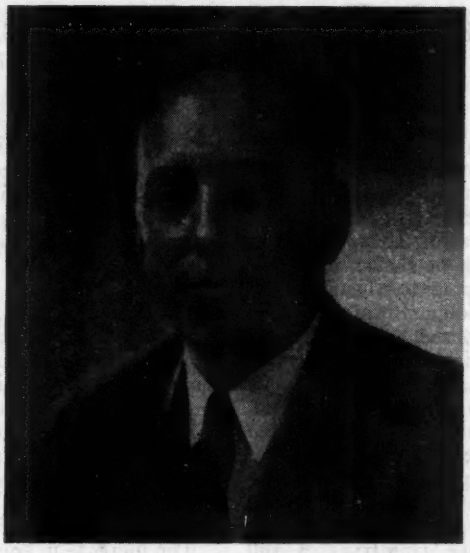
Values have advanced at an average rate of 1 per cent a month for four years, but for the last quarter of the year ending March 1st, some slackening off of sales is reported, indicating that peak prices may have been reached.

The greatest price increases in farm lands for the past year have occurred in southern states. Compared with average values of the 1935–39 period, the states with greatest advances are South Carolina 96 per cent, Kentucky 95 per cent, Indiana 81 per cent, Arkansas 79 per cent, Tennessee and North Carolina 75 per cent, Georgia 73 per cent, Mississippi 68 per cent.

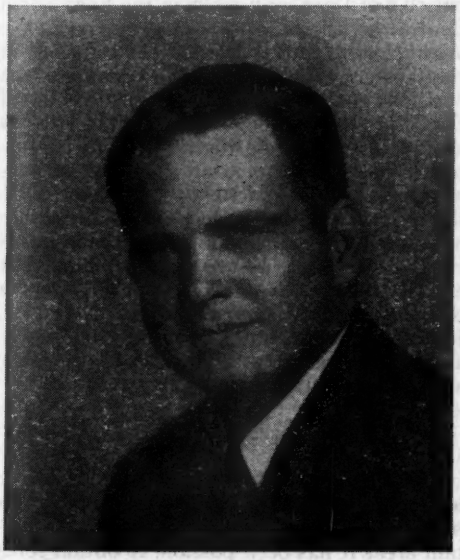
About two-thirds of farm land purchasers are farmers. In 1944, 55 per cent of reported sales were for cash, compared with 52 per cent in 1943 and 45 per cent in 1942, indicating a large volume of available cash in the hands of farmers, also indicating a degree of optimism on the part of the farmer over the future of agriculture that may not be supported by developments.

Great strides have been made under the original Rural Electrification Act. The number of electrified farms has increased from 10 per cent to 43 per cent since the creation of REA. But there are still more than six million rural homes without this modern convenience.

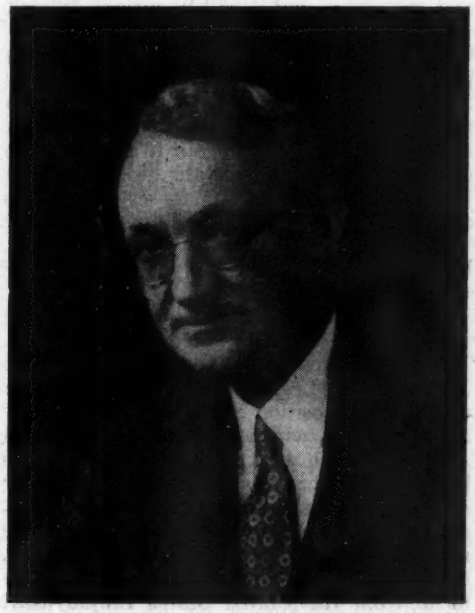
Officers of the National Fertilizer Association 1945-1946



M. H. LOCKWOOD
Chairman, Board of Directors



F. J. WOODS
Vice-Chairman, Board of Directors



D. S. MURPH
Executive Secretary and Treasurer

Report of the President of the National Fertilizer Association

By H. B. BAYLOR

THE restrictions of the Office of Defense Transportation regarding travel prevented the holding of our usual type of convention this year. It has been customary for the president of the Association to address the members at the opening of the annual convention in order to report to them on the affairs of the Association. I am therefore giving you herewith a brief account of the activities of the Association over the past year.

The Association and agriculture have suffered a grievous loss in the death of H. R. Smalley, Chief Agronomist and Director of Soil Improvement Work, who died on February 27, 1945. Mr. Smalley was with the Association for over 25 years and was perhaps known to more agricultural workers than any other agronomist in the country. A full account of his valuable work with the Association has been published in *The Fertilizer Review*. He is sorely missed by his colleagues and associates, and it will be a most difficult task to find a satisfactory successor.

On April 1st, Mr. Brand, having reached the general retiring age of 65, retired as Executive Secretary and Treasurer of the Association after 20 years in that position. It is not necessary for me to point out to the members of this Association the invaluable service that he has rendered during these years. To attempt to do so would require more space than is available for this entire report and, besides, it is well known to you all far better than I could tell it.

At its meeting on February 16, 1945, the Executive Committee elected Daniel S. Murph, for more than 11 years Administrative Assistant and Legal Adviser of the Association, to the position of Executive Secretary and Treasurer, which duties he took over on April 1st. The work of the Association has been seriously handicapped by the manpower situation in Washington. Trade associations, not being engaged in actual production, are not classed by WMC as essential activities, consequently it is impossible to obtain a referral from the United States Employment Service which would permit the employment of any individual even to replace an employee who has resigned. Several such resignations having occurred during the last year leave the Washington office seriously shorthanded with no relief in sight, although every effort has been made to obtain a higher employment rating even to the extent of obtaining endorsement by some of the Government war agencies.

The calendar year 1944 brought the largest consumption of fertilizer in history—12,072,000 tons according to the best data and estimates available. It is possible that the tonnage for the fiscal year ending June 30, 1945, will be even greater, but labor and transportation difficulties coupled with inability to obtain the kind and quantity of certain materials when and where wanted will in some areas curtail shipments.

The increase in consumption varied greatly in various parts of the country. As a whole, 1944 consumption increased 5.3 per cent over 1943. In the older fertilizer consuming areas, running from Maine around the coast to Texas, the increase in tonnage amounted to only 0.6 of 1 per cent, while in the East North Central area it increased 23 per cent, in the West North Central area 53 per cent and in the Western area 45 per cent. Because of the decisions of the War Food Administration and the War Production Board that fertilizers should in general be distributed on an historical basis the demand in the older consuming areas was required to be filled before shipments could be made to areas heretofore not customarily consuming fertilizer in quantity. As a result it was not possible to meet entirely the increased demand for fertilizers in the States of Missouri, Kansas, Nebraska, Iowa, Minnesota, and Wisconsin. In all other areas the demand was filled so far as labor and transportation permitted.

Labor

The fertilizer industry has been seriously handicapped in all parts of the country this past year by the shortages of labor. In certain areas it has been possible to obtain some relief through the use of prisoners-of-war, but only in a comparatively few plants could the war requirements be met. The establishment,

by the War Manpower Commission, of ceilings for the number of employees and the wage scale, in comparison with those allowed in other activities, particularly in those producing munitions of war and ship building, have made it extremely difficult to maintain normal production and output of shipments.

Our efforts, through the United States Employment Service with the assistance of the War Food Administration, in some instances produced results. In the main, however, the local USES could place all unemployed applicants in activities either with higher wage scales or offering more attractive working conditions and surroundings.

In my opinion, unless the labor situation is much improved in the next few months, the industry must make every effort to have some of the restrictive orders of WMC eased as to fertilizer labor and to obtain a higher priority rating for its labor. In no other way will we be able to ship and produce the tonnage necessary to meet the food goals of the War Food Administration. The aid of this agency, as well as that of the War Production Board, must be enlisted in the effort in order that the seriousness of the situation may be fully understood by the War Manpower Commission.

Superphosphate

Production of superphosphate in the calendar year 1944 was 6,739,216 tons of normal basis of 18 per cent and 281,076 tons of concentrated basis 45 per cent equivalent to 702,690 tons basis 18 per cent, or a total equivalent production of 7,441,906 tons basis 18 per cent. Estimated total production for the fiscal year ending June 30, 1945, is 7,332,154 tons basis 18 per cent. Production for this year would no doubt have been considerably larger except for the fact that some sulphuric acid of Government production, once expected to be available for superphosphate manufacture, was of necessity diverted to explosive use. At one time last fall it looked as if at least 500,000 tons more superphosphate would be lost to production by reason of this diversion. Cessation of hostilities in Europe will no doubt release additional acid. The capacity to produce superphosphate in the post-war period is very large. According to a survey made by E. D. Jacob of the U. S. Department of Agriculture in 1941, the 146 plants then producing normal superphosphate had a production capacity of 8,429,000 tons basis 18 per cent. Since that time at least 10 new plants have come into operation, two stand-by plants have started up, and two have been enlarged. The additional capacity so operating is estimated to be 908,000 tons basis 18 per cent. Post-war capacity of the nine plants capable of producing concentrated superphosphate is approximately 638,000 tons basis 45 per cent, equivalent to 1,594,000 tons basis 18 per cent. This totals a production capacity already in existence of superphosphate basis 18 per cent of 10,931,000 tons. Obviously there is no need for the construction by Government of additional capacity.

Nitrogen

Although late in the summer of 1944 it appeared that there might be serious curtailment of the amount of fertilizer nitrogen that would be obtainable, it now seems probable that this fiscal year about 622,000 tons will be delivered, as compared to a consumption of 631,000 tons last year. The necessity for the military use of all available anhydrous ammonia indicated earlier in the year that its use in fertilizer would be greatly restricted by early 1945, but changes in the munitions program somewhat relieve the fertilizer nitrogen picture, as did the importation of large quantities of nitrate of soda even though some of these cargoes may be too late to be used on this year's crops.

Potash

Production of potash has been increasing year by year, so that sufficient was available this year to meet the requirement of about 150,000 tons of K_2O for chemical use, largely in the war effort, to export sizable tonnages to Canada and other Western Hemisphere countries, and substantially to meet all requirements for fertilizer manufacture. There is some shortage of sulphate of potash because of breakdowns and finally of a shutdown in the Rubber Reserve Company plant doing the conversion from muriate. It is estimated that next year's production of potash will exceed this year's production by at least 100,000 tons of muriate.

Mixed Fertilizer

Consumption of mixed fertilizer was the largest in history, due mainly to expanded use in newly developing territory. Such use will no doubt continue to increase as long as crops of the present magnitude can be disposed of at present highly favorable prices. Unless the farm income can be maintained at substantially present levels, fertilizer consumption probably will decrease in proportion to the

decline in farm income. Such has been past history and there is no reason to expect a different trend in the future unless such use is subsidized by the Government either through the cost to the farmer of his fertilizer or through the return he receives for his crop, either method at the taxpayers' expense.

Agricultural Adjustment Agency

There was not sufficient sulphuric acid available to manufacture all the superphosphate that would be necessary to meet both the commercial requirements and the tonnages desired by the Agricultural Adjustment Agency for distribution as grants of aid in their soil conservation program. The War Food Administration recommended that commercial requirements be met first and all surplus be assigned to AAA. As a result, during the calendar year 1944 this agency distributed a total of 810,575 tons of fertilizer, of which 685,960 tons were normal superphosphate, 110,324 tons were basic slag, 4,570 tons were borax, and 9,721 tons were fused defluorinated phosphate rock. In addition there were 116,785 tons of normal superphosphate purchased from fertilizer dealers and agents under the AAA certificate of purchase plan whereby the purchase is made by the farmer from his regular retail distributor and payment made by the AAA at a price agreed on for each county. Total distribution by AAA for the fiscal year ending June 30, 1945, is expected to be about 750,000 tons of normal superphosphate together with tonnages of the other materials mentioned. It is planned that there will be considerable increase in distribution next year if sulphuric acid is obtainable.

Tennessee Valley Authority

Most of the phosphorus-producing capacity of TVA over the past year has been directed toward elemental phosphorus for military use, particularly for the production of incendiary bombs for use in the Pacific. It is believed that some 15,000 or 20,000 tons of concentrated superphosphate have been used in their demonstration work and possibly some tonnage has been shipped under Lend-Lease, but figures are not available. It is believed that their post-war capacity, if all furnaces are working to produce concentrated superphosphate, will be in the neighborhood of 275,000 tons.

War Work

The Association has continued its cooperation with the several governmental agencies concerned with fertilizer problems in the war effort, such as WPB, OPA, WFA, and ODT, in every possible way. It has continued publication of *Fertilizer War Notes*, 52 issues of which have now been published in which the entire industry and some thousand agricultural workers have been kept promptly advised of the various orders, directives, instructions, and the amendments of the same, issued by these agencies, both through careful analyses of such regulations in *The NFA News* and through distribution of copies of the documents themselves. Members of the staff have been frequently called into conference when changes in regulations were contemplated or under consideration in order to furnish data pertinent to the pending problems. The mutual confidence and respect have been most gratifying. Needless to say, the Washington office and personnel stand ready at all times to render any assistance possible in the war effort.

Films

Our educational moving pictures continue to be in excellent demand. At present we have 118 copies of the three films in circulation which in the last 10 months, in spite of wartime restrictions on meetings, have been shown to over 1,200 audiences totaling some 50,000 persons. At the present time 59 of these copies are on long-time loan to colleges, agronomists, and Soil Conservation offices where they are in constant use. Over the past five years our films have been shown to more than 15,000 audiences totaling more than 1,000,000 people.

"Hunger Signs in Crops"

The second printing of 8,000 copies of the book *Hunger Signs in Crops* is now off the press. Already more than 3,500 copies of the second printing have been sold. The first printing is, of course, exhausted.

Fertilizer Practices Survey

At the urgent request of Government officials we undertook in the fall of 1944 to make a third fertilizer-practices survey similar in character to those made in 1929 and 1939. The purpose was to be able to evaluate the impact of war conditions on the problems involved and to be able to supply data that might be useful in post-war planning. The handicaps in making such a survey at this time were well recognized but it was felt that the results that would be obtained justified the effort. In the main survey 370 inter-

(Continued on page 28)

Potash Allocations for Agriculture to be Increased

Allocations of potash for industrial use will be cut approximately 10 per cent, and this quantity will be used instead for agricultural needs, War Production Board officials told the members of the Potash Producers Industry Advisory Committee at a recent meeting, WPB reported on May 15th.

In view of the limited supplies of potash, it is hoped that it will not be necessary for the United States to export potash out of the Western Hemisphere, WPB said.

As a substantial portion of the potash producing facilities in France was destroyed during action in the Alsace area, it is not expected that there will be any exportable surplus in 1945 or 1946, WPB said.

No word has been received as to the condition of the German mines, the committee was told. However, WPB pointed out, the Kaiseroda mine, in which the hoards of gold bullion, foreign currencies and stolen art treasures were discovered, is probably the largest potash mine in the world. Substantial quantities of potash from this mine were exported to the United States in pre-war years.

For the next two years a limiting factor in the possible importation of potash from both Germany and France will be the lack of adequate internal transportation and power there, WPB pointed out.

Spain, Palestine and the Soviet Union are other major sources of potash. The mines in Poland are reported to have been destroyed, WPB added.

Post-war conservation policies for the potash industry were discussed by representatives of the Department of Agriculture, who pointed out that the known resources of potash in this country are adequate for only 100 years at the present rate of consumption, or for 50 years at the consumption rate desirable from the standpoint of soil conservation.

Committee members said the Government's estimate of supplies was entirely too low, and that the present policies of the Government discouraged potash companies from further exploration to determine the extensiveness of undeveloped deposits. The committee expressed the opinion that as soon as potash trade with Europe is resumed, substantial quantities can be imported to augment our own supplies without any governmental intervention.

WPB reported that sulphate of potash continues to be in very short supply. Requests for Period 6 allocations (June 1, 1945, through March 31, 1946) are nearly twice as high as anticipated supplies. Committee members concurred in the opinion that they were not in a position to increase production in existing facilities. WPB will investigate the possibility of producing potassium sulphate in furnaces now producing salt cake and hydrochloric acid, officials told the committee.

The committee recommended that the potash allocation order (Schedule 98 of Order M-300) not be canceled in the immediate future. However, the members suggested that a meeting of the committee be held in July to consider the lifting of controls at that time.

The committee also favored moving the final date for contracting for potash allocations from August 15th to July 15th for Period 6. WPB said that action would be taken to change the date as requested.

Southern Agricultural Adjustments Studied by Economists

The American Farm Economic Association is taking up a study of economic problems of southern agriculture in which cotton will receive special attention, according to Dr. L. J. Norton, University of Illinois, president of the Association. Members of the committee are: Dr. G. H. Aull, Clemson College, South Carolina; Prof. L. P. Gabbard, Texas A. & M. College; Prof. B. M. Gile, Louisiana State University; James Hand, Jr., Rolling Fork, Miss.; E. L. Langsford and Dr. O. C. Stine, Bureau of Agricultural Economics, Washington, D. C.; Prof. Frank Welch, Mississippi State College, and Dr. Joseph Ackerman, Farm Foundation, Chicago, Illinois, chairman.

Another current activity of the Association is a contest on "Price Policies for Agriculture." The writer of the best paper is to receive $5,000. The contest closes August 1st. Details of the contest may be obtained by writing Prof. Asher Hobson, University of Wisconsin, Madison, Wisconsin, who is secretary of the Association.

Okra, grown easily in the South, has been discovered capable of producing an edible oil equal to that of cottonseed; also that the fiber of the okra plant is tough and suitable for cordage or will provide a source of cellulose.

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Farm Bureau's Fertilizer Program

An open season for shots at a national fertilizer policy has been utilized by the American Farm Federation Bureau. From the standpoint of the fertilizer manufacturer the chief objection to the Farm Bureau's plan is that it would center the manufacture of fertilizers in regional plants of farm cooperatives financed by the Government.

These regional farm cooperative plants, the report says, are "to process raw fertilizer materials for distribution by cooperatives" in the respective regions.

The Farm Bureau's plan would not only have the Tennessee Valley Authority acquire Florida phosphate deposits and enlarge its production of phosphate fertilizers, but would have the Government set up similar operations in the West for producing both phosphate and potash fertilizers.

To carry out its program, the report says, "the full and sympathetic cooperation of the American fertilizer industry is absolutely essential." Would not "full and sympathetic cooperation" in wrecking one's own private business be placing too much of a strain on the fertilizer manufacturer's altruism?

A la TVA, the Farm Bureau would pass out fertilizers free to farmers for demonstration purposes. Incidentally, these gifts of fertilizers have not impaired farm relationships with the donors, and they were not intended to discourage the policy of letting the Government do it.

The plan would engage in a "test-demonstration" program to be in charge of the Agricultural Extension Service of each state, working under an advisory committee comprised of three farmers, one member of the fertilizer industry and the director of the Agricultural Experiment Station. Locally the program would be administered by the County Agent with a local committee similar to that for the state.

For more than half a century under the Hatch Act, agricultural research has been carried on by trained scientists of state agricultural experiment stations under the direction of the United States Department of Agriculture. These 48 stations have undertaken to work out various agricultural problems, including fertilizers, as applied to every part of each state. Many scattered farm tests have been conducted. From these tests, scientifically conducted, accurate and reliable information is obtained which the County Agent can confidently recommend to his farmers.

Tests belong to the research worker while demonstrations belong to the extension worker. Demonstrations are merely the application of results of tests made by research workers. The two jobs can not very well be done by either the research worker or the extension worker.

The distinction between test and demonstration work seems to have been overlooked by the Bureau's plan. If tests are to be conducted by a County Agent, there would be no need for agricultural experiment stations. But any County Agent who feels that he can conduct accurate, scientific tests would admit that he would not have time to carry on demonstrations and his other and varied duties.

The implication of the Bureau's plan is that the Agricultural Extension Service has fallen short of its opportunities to do demonstration work and that much more should be done. Yet if facts were disclosed, County Agents have conducted demonstrations through the years in every community in the country. Furthermore, the plan virtually ignores the experiment station as a fertilizer determining agency.

As previously stated in these columns, the best and only reliable fertilizer policy is to let the agricultural experiment stations determine, by careful and accurate research, the kind and quantity of fertilizer to use for each crop on each soil type or other condition. Let the County Agent take these findings to the farmer and demonstrate their value on the farms.

Let the fertilizer manufacturer produce the kind of fertilizer the farmer needs.

This would seem policy enough for the nation. Proposed new policies would only increase administrative expense, add to the cost of fertilizers and bring about overlapping and confusion in the Government's agricultural administration.

Fertilizing Peas

Growing market for garden peas in South Carolina is treated in Bulletin 354 of the South Carolina Agricultural Experiment Station, W. C. Barnes and C. N. Clayton, authors. As a result of experiments the authors recommend the application of 600 to 800 pounds per acre of 5–10–5 or 4–12–4 fertilizer, applied 2 to 3 inches at the side of the seed instead of in the row.

Eight different fertilizer analyses were applied at the rate of 640 pounds per acre without significant differences on yields. Varying the rate of application of 5–10–5 fertilizer failed to give significant differences in yields, leading to the conclusion that 600 to 800 pounds per acre were sufficient. "Side-dressing with either nitrate of soda or sulphate of ammonia failed to give any increase in yield," the authors report.

Spring Grazing and Fertilizers

"Dairymen, beef cattlemen and hog growers report that temporary grazing crops seeded in early fall, by September 1st, with plenty of seed per acre and a good application of fertilizer, furnish them the cheapest feed they produce on the farm," states the North Carolina Extension Service.

One farmer said of his temporary grazing crops: "Saves three-fourths of the protein supplement for growing hogs and for brood sows it cuts the consumption of concentrates about half."

Another who used temporary grazing crops for cows is quoted as saying: "I wouldn't have the cows if I didn't have the grazing crops."

Both farmers had used 300 pounds of fertilizer per acre at planting of the grazing crops.

Obituary

A. E. Sheldon

The fertilizer industry has lost another of its leading executives through the death on May 4th of A. E. Sheldon, president of the Federal Chemical Company, Louisville, Ky. Mr. Sheldon was born in 1870 at Rutland, Vt., and was for a number of years assistant superintendent of the Sheldon Marble Co., in his home town. In 1901 he became associated with the Federal Chemical Company and was placed in charge of the company's phosphate rock mining operations in Tennessee, where he made an enviable record in developing this great industry.

In 1921 he was elected a vice-president of the company and, on the death of the president, George Braden, in 1923, Mr. Sheldon succeeded him in that office, which he held until his death. During his years as president, the company made notable progress, establishing additional plants at several fertilizer centers in the Middle West and South.

He is survived by Mrs. Sheldon and one son, to whom is extended the sympathy of his many friends throughout the fertilizer industry.

Post-War Agricultural Planning

Noble Clark, chairman of the Land-Grant College Committee on Post-War Agricultural Planning and connected with the Wisconsin Agricultural Experiment Station, recently discussed the committee's report before the staffs of the Tennessee Agricultural Experiment Station and the Extension Service. Some of the high points of the report are presented in the *Tennessee Extension Review* so clearly and comprehensively that they are reproduced herewith.

State Agricultural Colleges and Experiment Stations have for many years conducted research and engaged in educational work, to enable farm people to have the aid of science and the service of trained agricultural workers in overcoming the problems of crop and livestock production.

Increasingly it has become apparent that many of the factors which exert the largest influence on the income and welfare of farm people lie beyond the line fences of individual farms, and involve the relationships between farmers and other groups of our population.

Public policies related to agriculture and also to virtually every other important segment of our national economy, now have significance to farmers as they never had to rural people of previous generations.

Certain basic concepts underlie the Land-Grant College Committee Report on Post-War Policy. Among these, Mr. Clark pointed out the following:

1. Most Americans believe strongly in retaining all possible initiative and responsibility in private hands rather than greatly expanding governmental functions.

2. In a progressive economy the needed foods and fibers can be produced by a decreasing proportion of the total population.

3. The farm population more than reproduces itself, while the urban population fails to maintain its own numbers. The city needs rural people as well as the products of our farms. There is a normal flow of population from farm to city, except during economic depressions.

4. Advantages, such as accrue to farmers from higher farm prices and larger farm incomes, tend to be capitalized into higher farm land values, instead of continuing to help the families operating the farms to raise their level of living. Public programs to aid agriculture will therefore need to emphasize especially those activities which directly benefit the people who live on the land, and that are of such a nature as to have little tendency to raise land prices.

5. Farm prices rise and fall with city payrolls. Manipulation of agricultural production and enterprises is no substitute for good consumer markets.

6. Urban people are benefited when farmers have a high level of farm production and good incomes with which to purchase the products of city industries.

7. Risks of the future can best be reduced by maintaining economic opportunity to use both human and natural resources most efficiently. Such a procedure permits people and resources no longer profitably employed in one use to find quickly a satisfactory alternative.

8. Agriculture normally does a good job of keeping up both employment and production, even during periods of urban unemployment. Government action to stimulate continuous production and employment in all sections of the national economy is clearly needed. Governmental efforts to combat depressions are much more likely to be effective if designed to prevent unemployment and economic stagnation than if the emphasis is

(Continued on page 26)

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FERTILIZER MATERIALS MARKET

NEW YORK

Possible Improvement in the Nitrogen Situation for June. Additional Cyanamid to Be Available. More Nitrate of Soda Being Received. Superphosphate Situation Still Tight. Delay in Announcement of New Potash Prices.

Exclusive Correspondence to "The American Fertilizer"

NEW YORK, May 17, 1945.

Sulphate of Ammonia

While the shortage of sulphate of ammonia continues, there has been some improvement in the outlook for June. It is expected that some producers will have some excess stocks which will permit increased shipments to Eastern and Middle Western mixers. Such shipments must be made by June 30th.

Nitrate of Soda

The demand continues but the distinct increase in the supply available should make it possible to meet all requirements for top-dressing purposes.

Cyanamid

It is reported that Canadian producers will be able to supply additional cyanamid to the amount of 2,000 to 3,000 tons. WPB is allotting half of this material in pulverized form for use in fertilizer mixtures and the remaining half in granular form to the Middle West and Central Atlantic States for direct application.

Organic Ammoniates

Fertilizer organics are still extremely scarce and May orders will still be unfilled at the end of the season. The feed market is taking all materials that can be used for this purpose and the situation remains tight.

Superphosphate

Demand still continues strong from the West and Northeast sections and it is not expected that any inventories will be carried over. Some plants are planning to continue operations through the summer in order to keep their labor force intact.

Phosphate Rock

Miners are still able to keep abreast of all demands from acidulators but a severe box car shortage has been prevalent during the past several days. This was said to be due to the demands of the grain trade which had first call on available shipping facilities.

Potash

A cut of 10 per cent in potash allocations for industrial use will give an additional quantity for fertilizer production. Announcement of future allotments has been held up temporarily by Washington and potash manufacturers have accordingly delayed announcing prices for the coming year.

CHARLESTON

No Carry-Over of Organics Expected. Larger Supplies of Nitrate of Soda Promised. Potash Prices Not Yet Issued.

Exclusive Correspondence to "The American Fertilizer"

CHARLESTON, May 16, 1945.

Organics.—The closing of the fertilizer season in this section finds the fertilizer manufacturers with practically no carry-over of organics.

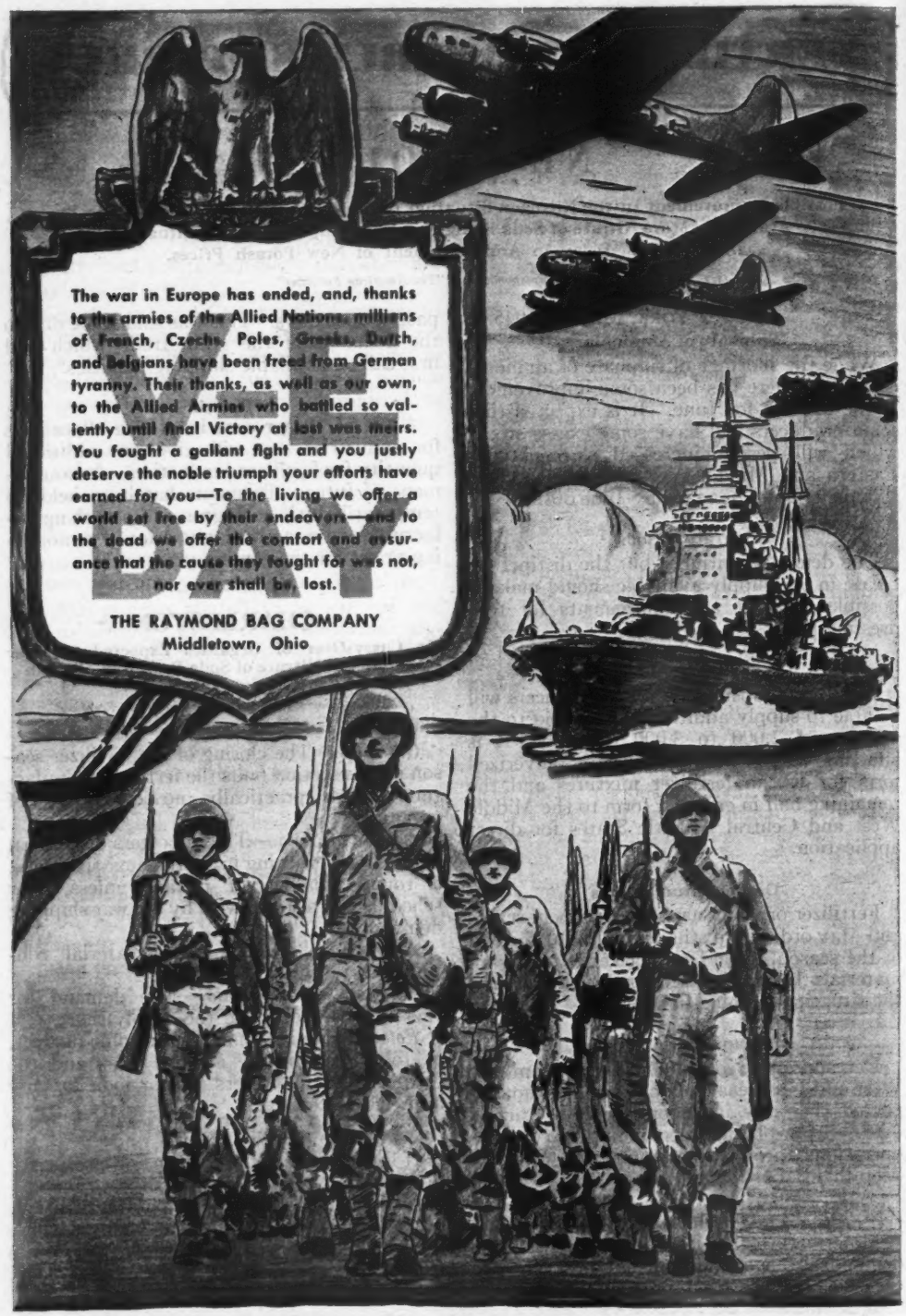
Nitrate of Soda.—The importers of Chilean nitrate hope to bring in, in the next six weeks, a round tonnage of nitrate unless their schedule is interfered with by the war shipping demand.

Ammonium Nitrate.—This material continues exceedingly scarce.

Sulphate of Ammonia.—The demand for this is very heavy, and the supply short.

Potash.—No information has come out yet, as to prices, for the coming year, and the fertilizer manufacturers do not look for any appreciable change.

It is certain that the welfare and prosperity of this great nation rest upon its two foundation stones, its industry and its agriculture. It is likewise axiomatic that each of these foundations depends upon the other for its security and prosperity.—*Dr. E. L. Anthony, Michigan State College.*


The war in Europe has ended, and, thanks to the armies of the Allied Nations, millions of French, Czechs, Poles, Greeks, Dutch, and Belgians have been freed from German tyranny. Their thanks, as well as our own, to the Allied Armies who battled so valiently until final Victory at last was theirs. You fought a gallant fight and you justly deserve the noble triumph your efforts have earned for you—To the living we offer a world set free by their endeavors—and to the dead we offer the comfort and assurance that the cause they fought for was not, nor ever shall be, lost.
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CHICAGO

L ttle Business in Fertilizer Organics. No Price Changes Expected. Feed Material Market Firm.

Exclusive Correspondence to "The American Fertilizer"

CHICAGO, May 14, 1945.

Business in the western organic market continues at a virtual standstill. Many in the trade do not look for any nearby government change in ceiling prices.

By-products in the feed market are firm. Trading is limited due to scarcity; the demand exceeds the supply.

Ceiling prices are:

High grade ground fertilizer tankage, $3.85 to $4.00 ($4.68 to $4.86 per unit N) and 10 cents; standard grades crushed feeding tankage, $5.53 per unit ammonia ($6.72 per unit N); blood, $5.53 ($6.72 per unit N); dry rendered tankage, $1.25 per unit of protein, f. o. b. producing points.

Blast and Fire Hazards of Ammonium Nitrate

Ammonium nitrate, the war explosive that is also much used as a fertilizer, does not explode easily under common conditions of storage and transportation, say U. S. Department of Agriculture fertilizer experts. Neither is it more dangerous as a fire hazard than sodium nitrate, either the natural Chilean nitrate of soda or the synthetic kind derived from atmospheric nitrogen.

With the expansion of the fertilizer use of ammonium nitrate which has accompanied its manufacture for military use, the Department has investigated its reactions under various conditions. The results reported are reassuring to those who use it and those who are transporting and storing it.

The fertilizer experimenters say they found no record of an explosion from heat of this chemical resulting from its presence in quantity in a burning building or ship. They also found that it takes a high-velocity detonator in considerable quantity to set it off; and that explosion of it from a blow or friction is not probable. When in large grains or granules, it is even less explosive than when more finely divided. They say, finally, that ammonium nitrate is not considered explosive under transportation or storage conditions when contained in wooden boxes or barrels or in paper bags, if it is apart from other explosive substances.

The fire hazard that accompanies the handling, transportation, and storage of ammonium nitrate, according to the investigators, is much the same as with nitrate of soda. The principal dangers, they find, are a condition where it increases the violence of combustion by providing extra oxygen and one that may bring about spontaneous combustion through the presence of some other material that oxidizes easily. But there apparently is no strong tendency for such conditions to develop. High temperatures encourage fire only where other conditions are conducive to it. The experimenters say the presence of such readily burnable metallic powders as zinc, aluminum and iron in contact with wet ammonium nitrate may result in spontaneous combustion, and such combinations are to be avoided.

A common fertilizer mixture of superphosphate, ammonium nitrate and an organic meal (such as peanut hull meal) may give rise to spontaneous combustion at room temperatures, but this hazard can be avoided if the superphosphate is ammoniated.

Details on problems of explosibility and fire hazard of ammonium nitrate used as fertilizer

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have been incorporated in Circular 719, Explosibility and Fire Hazard of Ammonium Nitrate Fertilizer, by R. O. E. Davis of the Bureau of Plant Industry, Soils, and Agricultural Engineering. It should be of particular value to farmers and those who deal in fertilizers. It may be obtained by writing to the Office of Information, U. S. Department of Agriculture, Washington 25, D. C.

Current Fertilizer Recommendations

Cantaloupes.—The Georgia Experiment Station recommends in Press Bulletin 545, the use of 800 to 1,000 pounds per acre of 4–8–6 or 4–8–4 at planting time with 100 to 200 pounds of nitrate of soda, or equivalent, when vines are one foot long.

Fish Ponds.—News release of the Extension Service of Texas says: "Fish can be grown more cheaply than chicken or 'red' meat in the more than 125,000 ponds on Texas farms and ranches. This is the conclusion of Foard County Agricultural Agent David F. Eaton.

It is impossible, he explains, to "fish out" a pond which has been correctly stocked and fertilized regularly. A farmer can get 200 to 300 pounds of fish weighing six to eight pounds from each acre of pond annually.

"Since 1935 research has shown that any ordinary chemical fertilizer placed in a pond will increase the growth of microscopic plants and animalcules, known collectively as plankton, which is the basis for a cycle of feeding. But plankton is processed by a series of lesser creatures before its benefit reaches the big fellow. Insects feed upon it; forage fish feed upon the insects and their larvae; and finally carnivorous fish feed upon the swarming young of the forage tribes."

Rice.—Rice fertilizer tests conducted near Beaumont, Texas, through several years show that a fertilizer supplying 20 pounds each of nitrogen and phosphoric acid has proven profitable. It was also revealed that fertilizer applied in the drill exceeded in yield by 15 per cent that applied broadcast.

Sweet Potatoes.—Yields of sweet potatoes at Edisto Experiment Station, South Carolina, with 1,000 pounds per acre plus 5 pounds of borax, gave 40 to 70 per cent greater yield than where borax was omitted, according to Dr. J. C. Nusbaum, plant pathologist. Additional rates of borax tended to decrease yields.

Grain Sorghums.—W. H. Craven, agronomist in South Carolina Extension Service, reports that grain sorghums are supplementing the farmer's grain needs in many sections of South Carolina. He points out that grain sorghums are well adapted to droughty conditions and will make a satisfactory yield where corn practically fails.

If excellent yields from these sorghums are to be maintained, he says, a complete fertilizer is necessary. An application of 200 to 600 pounds of a 3–12–6 fertilizer should give good results. Planting the latter part of June is recommended.

Pastures.—The Georgia Extension Service recommends as an initial application to north Georgia pastures of 500 to 800 pounds per acre of 20 per cent superphosphate and for south Georgia the same amount of superphosphate plus 75 to 100 pounds of muriate of potash per acre. Lime is recommended in addition.

Florida Experiment Station reports that on unfertilized pasture beef cattle lost six pounds per acre; gained 70 pounds per acre where 400 pounds of 3–16–8 plus nitrogen were used, and gained 106 pounds where the complete fertilizer plus nitrogen was supplemented

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Mississippi reports pasture plots receiving 400 pounds of superphosphate in 1937 at Holly Springs branch station, still produce 804 pounds more per acre of dry matter, four years later, than untreated pastures. But plots which had received phosphates each year produced 3,429 pounds more of dry matter the fourth year. The phosphated plots were preferred by the grazing animals.

North Carolina, reporting through Dr. B. A. Krantz, reveals that the use of 20 pounds of nitrogen per acre as a top dressing on Abruzzi rye produced the equivalent of 83 pounds of protein per acre as an average of three tests. The use of 30 pounds of nitrogen on two other tests gave an increase of 121 pounds of protein per acre.

South Carolina says through its extension dairy specialist, C. G. Cushman: "Nature's most perfectly balanced feeds for livestock are well fertilized permanent pastures, annual grazing crops, quality cured hay, and silage. Grazing saves labor, equipment, storage, and feeding, which are all important at present."

Tennessee Extension Service, through Extension Agronomist H. E. Hendricks, advises the annual use of about 200 pounds of 20 per cent superphosphate or equivalent, per acre, on alfalfa and 100 pounds to lespedeza and a like amount to pastures. He also advises that hay crops may need potash and in some cases boron in addition to phosphates.

Virginia's most important cash crop is grass, says *Southern Planter* which adds: "There are few farmers who cannot use lime and fertilizers on their pastures profitably."

Corn.—Whether you plant an adapted hybrid or open-pollinated variety of corn, it is important that you use plenty of fertilizer in order to get the increased yields you want.

Let's not think about the 100 or 150 pounds of fertilizer that many of us have used in the past, but this year plan on 300 to 500 pounds of either 3–12–6 or 4–12–4 fertilizer to the acre. It may be applied in several different ways but should be as near the seed as possible without coming in contact with it.

Corn is a heavy user of nitrogen. Higher yields will result from side-dressing with quickly available nitrogenous fertilizer, particularly on poorer soils. On land that will not produce more than 45 bushels of corn per acre, side-dress with 125 to 150 pounds per acre at the second cultivation.—*Virginia Extension Division News.*

Fertilizer Studies in Alabama

Results of tests with fertilizers reported in the Fifty-second and Fifty-third Annual Reports of the Alabama Experiment Station, recently issued, are summarized herewith. Copies of the full reports are obtainable from Director M. J. Funchess, Agricultural Experiment Station, Alabama Polytechnic Institute, Auburn, Ala.

Crotalaria as a Green Manure Crop

The value of crotalaria used as a summer legume green manure crop, tested for five years in lysimeters, is limited, according to Randall J. Jones, to the leaching of nitrates during the winter. Crotalaria turned under in the fall lost through leaching 42 pounds of nitrate nitrogen compared to 50 pounds for cowpeas and 52 pounds for soybeans. This loss of nitrogen was reduced about 50 per cent by waiting until spring to turn under the legumes and increased the yield of Sudan grass 75 per cent over the yield where the legume was turned under in the fall.

Supplements for Ammonium Phosphates and Urea

Eleven-year average results show that when a fertilizer is made up of ammonium phosphate, urea and muriate of potash, a supplement of 50 pounds of gypsum per acre increased the yield of seed cotton 400 pounds per acre on Norfolk sandy loam soil. Lime was not as efficient as gypsum but increased the yield about 250 pounds of seed cotton per acre. Lime added to gypsum did not increase the yield.

"In no case," says the report, "did the supplements added to ammonium phosphate, muriate and urea equal the production obtained from the use of regular superphosphate, muriate and urea or sodium nitrate."

(Continued on page 24)

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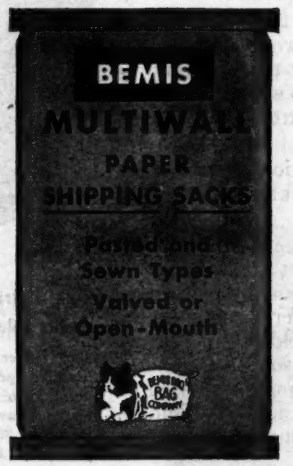

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Partial Replacement of Potash with Sodium

During a three-year period (1939–41) numerous greenhouse and field tests were conducted to determine the effect of sodium on the yield of cotton. N. J. Volk reports that sodium was found to be especially beneficial to cotton when potash was deficient and was slightly beneficial when potash was abundant. The most pronounced effect of sodium was the reduction in the severity of defoliation on potash-starved plants and the increase in the number of bolls set and matured.

"In no case," states the report, "was sodium able to substitute for potassium in amounts more than 15 to 25 per cent of the potash required."

Extra Potash for Cotton Rust

Data obtained from 146 field tests, conducted in southern Alabama and reported by J. W. Tidmore and N. J. Volk, revealed that about 45 per cent of the land of that region needs more than 24 pounds of potash per acre to prevent cotton rust from reducing the yield of cotton. The report states: "About 20 per cent of the area needs more than 36 pounds of potash per acre. There is no indica ion that cotton following winter legumes needs more potash than when following corn."

Rate of Fertilizing Cotton with and without Poisoning for Boll Weevil Control

Over a period of 18 years, four different rates of fertilizer applications were made for cotton on Norfolk sandy loam, to determine the relative value of fertilizers where cotton was treated for boll weevil control and left untreated.

The rates of fertilizer applications were 500, 1,000, 1,500 and 2,000 pounds per acre. Every third plot was left unfertilized.

"Poisoning for boll weevil control in this experiment," states the report, "accounted for an average increase of 46 pounds of seed cotton per acre on the three unfertilized plots. The average increases in the yield of different fertilizer applications on the poisoned sections were 215, 263, 394 and 380 pounds of seed cotton per acre for the first, second, third and fourth increments of 500 pounds, respectively."

Fertilizing Fish Ponds

Spring and summer applications of cottonseed meal and superphosphate (3–1) and of soybean meal and superphosphate (6–1) caused the growth of such large amounts of filamentous algae in ponds that fishing or seining was impossible.

Fishing records were kept on a 12-acre fertilized pond stocked with blue-gills, shellcrackers, crappie, yellow bull-heads and largemouth black bass. During the 1941 season a total of 2,140 pounds of fish, or 178 pounds per acre, was removed by hook and line fishing from this pond. In a nearby unfertilized 30-acre lake, fished by the same group of sportsmen, the catch has been less than six pounds of fish per acre yearly for the last two or three years.

Najas guadalupensis, *Potamogeton augustifolius* and *P. pusillus* were controlled in ponds by winter and spring applications of commercial fertilizer. This method of weed control resulted in greatly increased growth of the fish and in better fishing.

High Analysis Fertilizers

N. J. Volk reports a 3-year comparative study of 9–12–6, 6–8–4 and 3–8–5 (plus sodium nitrate) grades of fertilizer on cotton and states: "The data show that all three grades of fertilizer are equally productive with respect to cotton when rates of application are adjusted to supply equal amounts of plant foods."

The report, however, states: "If made from

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50 H.P. to 200 H.P.

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The greater need for post-war crops requires speed-up in fertilizer production. "Jay Bee" grinds any material going into commercial fertilizers—fast, cool and uniform. Heavy all steel construction makes the "Jay Bee" Hammer Mill practically indestructible. Greatest capacity for H.P. used. Sizes and styles to meet every grinding requirement: 12 H.P. to 200 H.P. with belt, V-belt, and direct connected drives.

Write for complete details, prices, etc.
State your grinding requirement, please.

J. B. SEDBERRY, Inc.
FRANKLIN, TENN. UTICA, N. Y.

JUST PLAIN old french fried potatoes, you say?

Well, let's go back to the time when they were a part of a whole field of spuds. Nitrogen played an important role in the quality and quantity of the crop.

Nitrogen today is playing an even more important role in the war. Much nitrogen that normally went into the manufacture of Du Pont's Urea-Ammonia Liquors and "Uramon" Fertilizer Compound is now going to Japan, in the form of block busters.

As soon as the supply for home consumption returns to normal, you'll want to make use of urea-nitrogen's many advantages. Our field representatives will be glad to consult with you *now*. Write E. I. du Pont de Nemours & Co. (Inc.), Ammonia Department, Wilmington 98, Delaware.

FOOD FIGHTS FOR FREEDOM

DU PONT UREA-AMMONIA LIQUORS

URAMON*

FERTILIZER COMPOUND

DU PONT BETTER THINGS FOR BETTER LIVING...THROUGH CHEMISTRY

*REG. U. S. PAT. OFF.

the same high-analysis materials as 9–12–6, a ton of 3–8–5 would contain 1,100 pounds of excess filler or sand. Fertilizers containing less than 18 per cent plant food have been eliminated from the list of approved grades for Alabama."

Phosphorus and Potash for Corn

Quoting the report in part: "For corn production following a crop that is well fertilized with phosphorus and potash, this Station recommends an application of 36 pounds as a side-dressing about 40 days after planting. However, a large acreage of corn in Alabama does not follow a crop that has been well fertilized with phosphorus and potash. Consequently, the application of 36 pounds of nitrogen does not always give the desired results.

"Hundreds of cooperative tests conducted over the state show that about 80 per cent of the fields planted to corn are deficient in phosphorus and potash, and that 45 per cent of them respond profitably to an application of these plant food elements."

POST-WAR AGRICULTURAL PLANNING

(Continued from page 16)

largely on "made work" programs and other palliatives after a depression sets in.

9. The evidence is overwhelming that under peacetime conditions this nation can obtain all the agricultural production it desires and for which it can provide a market in the post-war years with a much smaller farm population than now exists.

In the decade ahead millions of rural Americans must find non-farm employment if they are to have the economic opportunities we believe should be open to all American citizens in the post-war years. Because more farm people than any other group face the necessity of finding new employment opportunities if they are to make the most of their abilities, rural people have a very large stake in maintaining a condition of wide opportunity for individuals to shift to new locations or to new occupations.

10. Never before in history have there been so many new technological developments which promise not only to serve all of us by raising our level of living, but also to provide new jobs for large numbers of our people who will make the new products. *Consumers are going to have a much stronger desire for hundreds of the products and services of urban industries than for more food,* because a large number of Americans are today eating more and better food than ever before in their lifetime.

11. Some readjustments in agricultural production seem inevitable. Most Americans will agree that the public interest will not be served by maintaining at public expense land or labor in uses for which they are not needed.

There is need to recognize that an adjustment program for agriculture alone cannot achieve satisfactory results. If agricultural surpluses accumulate because of inadequate urban purchasing power, the only real cure is an expansion of non-agricultural employment. Always our purpose should be the opening of doors of opportunity, both on the land and in non-farm employment, for rural people and their children to make the greatest use of their talents and the largest advance in their level of living. This is in contrast with a program of freezing some historical pattern of agricultural production, and assuming that such a procedure will provide an adequate future for our farm population.

12. It would be impracticable to remove all wartime price and production controls on either agricultural or non-agricultural products as soon as the war ends. It would also be unwise for agriculture to advocate a policy of

SACKETT EQUIPMENT
for the Fertilizer Plant
BATCH MIXERS • PULVERIZERS
SCREENS • BUCKET ELEVATORS
CONTINUOUS AMMONIATING EQUIPMENT
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NEW YORK 7, N.Y.

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Official Brokers for

MILORGANITE

Specializing

Nitrogenous Materials

Blood and Fertilizer Tankage

Phosphate Rock

Bone Meals

Manganese Sulphate

SOUTH AMERICAN DRY RENDERED TANKAGE

PEOPLES OFFICE BUILDING

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Keyed SERVICE!

Fertilizer plants all over the country—large and small—state their needs and we meet them. Large stocks of seasoned materials and ample modern production facilities enable us to make prompt shipments.

TRIPLE SUPERPHOSPHATE

46 to 48% Available Phosphoric Acid

●

We also manufacture

HIGH-GRADE SUPERPHOSPHATE

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440 The Woodward Bldg.

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A Mark of FLORIDA TRIPLE SUPER PHOSPHATE *Reliability*

SPECIFY THREE ELEPHANT BORAX

REG. U.S. PAT. OFF.

. . . . WHEN BORON IS NEEDED TO CORRECT A DEFICIENCY OF THIS IMPORTANT SECONDARY ELEMENT

Agricultural authorities have shown that a lack of Boron in the soil can result in deficiency diseases which seriously impair the yield and quality of crops.

When Boron deficiencies are found, follow the recommendations of local County Agents or State Experiment Stations.

Information and references available on request.

AMERICAN POTASH & CHEMICAL CORPORATION

122 East 42nd ST., NEW YORK CITY

Pioneer Producers of Muriate of Potash in America

See Page 4

a free market with no governmental price guarantees for commodities which farmers sell, because there is doubt that labor, industry, and other groups are willing to go along on this kind of program.

Agriculture cannot be expected to disarm if the other groups insist on retaining their political advantages and weapons.

Recommended Policies

Many constructive public policies, which could contribute significantly to rural living without involving governmental fixing of prices or the control of farm production, are described in the committee report. A few of these recommendations are as follows:

1. Stabilization of farm land prices and ownership through proper legislation.
2. Enactment of state laws to establish minimum farm tenant housing standards, compensation for tenants for disturbance without cause, protection for owners against misuse of their property by tenants and reimbursement to tenants for unexpended improvements made by them.
3. Inclusion of farm laborers under Social Security laws.
4. Improvement of rural schools through state, county and Federal cooperation, with local administration—half of the children of the nation attend rural schools.
5. Expansion of rural health facilities—hospitals, doctors, dentists and nurses.
6. Expansion of rural electric lines and telephones—half of the farms of the nation are still without electric power and the number of rural telephones has been declining for some years.
7. Promotion of a sound rural housing and home improvement program.
8. Expansion of farm-to-market, all-weather roads.
9. Encouragement of local industries and the location of industrial plants in rural areas to provide employment for surplus rural population.
10. Development of strong state, county and community planning committees to handle rural problems which require group action—to stimulate rural thinking, planning and action along wholesome, effective channels.

REPORT OF THE PRESIDENT OF THE NATIONAL FERTILIZER ASSOCIATION

(Continued from page 12)

viewers obtained interviews with more than 15,000 fertilizer-using farmers and reported their practices. In addition, questionnaires were sent to all vocational teachers with the request that they interview their students and obtain similar data as to the practices on each home farm. Replies were received from 561 teachers reporting on an estimated additional 10,000 farms. All these reports are now in process of tabulation and of analysis and evaluation by staff members, and releases covering the various items included in the survey are being issued as fast as the circumstances permit.

Nutritional Deficiency Symptom Colored Slides

Last year a project was started making the Washington office a depository of Kodachrome pictures of authentic nutritional deficiency symptoms in plants and animals, duplicates of which would be furnished at cost. To date some 200 such slides have been approved and accepted by the committee of agronomists acting as judges. We have received to date and distributed 105 orders for over 6,000 duplicates of these 200 slides from all parts of the country and from as far away as India. Delay in obtaining duplicates from Eastman Kodak Company because of military demands on their resources for duplication is seriously handicapping this work.

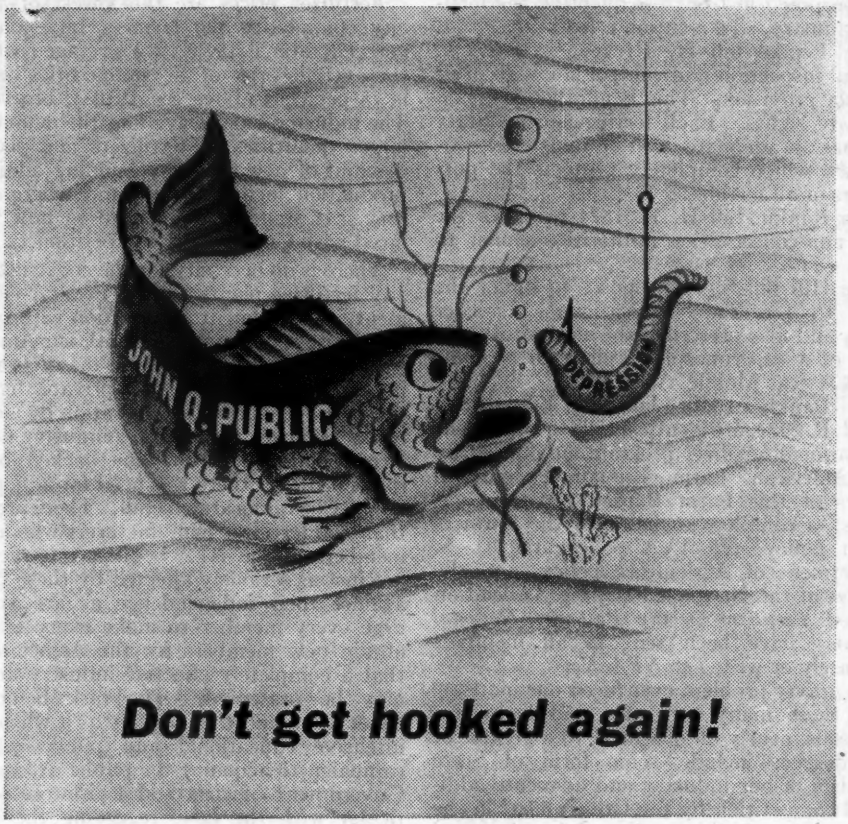
Service Letters

We have continued to compile the necessary data and to issue and distribute monthly the usual service letters on superphosphate production, tag sales, and price indexes. The service letter covering fertilizer exports and imports was discontinued at the outset of the war when for security reasons publication of such data was prohibited. Some of this type of data is now being released and it may be that it will be possible to resume issuance of this service letter a little later.

Legislation

Through the channels of *The NFA News* you have been kept advised of the flood of

SULPHATE OF AMMONIA AMMONIA LIQUOR
NITROGEN PRODUCTS, INC.
630 Fifth Avenue—Radio City NEW YORK 20, N. Y.
Sales Agent
AGRICULTURAL AND INDUSTRIAL CHEMICALS
Benzol Toluol Xylol



Only yesterday (YOU remember!) men sold apples on the streets, saw their furniture go back to the store, lost their houses, lost their farms. Will it happen again? It needn't.

But to avoid the kind of depression we had after the last war—WE MUST HEAD OFF INFLATION NOW! And the best way to do that is to save your money.

When you don't buy a thing you can get along without . . . *that's helping to prevent inflation.* When you decide this is a bad time to ask more money for the things you sell or to fight for a raise . . . *that's helping to prevent inflation.* When you pay up all your debts . . . *that's helping prevent inflation.* AND SOMETHING MORE!

It's the best way to protect yourself against a depression if one should occur, *and* the best way to prepare yourself for tomorrow's opportunities if times are good.

The smart thing today is to save, not splurge. Don't get hooked again!

4 THINGS TO DO to keep prices down and help avoid another depression

1. Buy only what you really need.
2. When you buy, pay no more than ceiling prices. Pay your ration points in full.
3. Keep your *own* prices down. Don't take advantage of war conditions to ask more for your labor, your services, or the goods you sell.
4. *Save.* Buy and hold all the War Bonds you can afford — to help pay for the war and insure your future. Keep up your insurance.

HELP US KEEP PRICES DOWN

A United States War message prepared by the War Advertising Council; approved by the Office of War Information; and contributed by this magazine in cooperation with the Magazine Publishers of America.

bills proposed in Congress affecting the fertilizer industry. To mention a few:

The Lemke bill H. R. 1823 proposes a Federal inspection and control law with open formula provision. This is another invasion of State rights. Each fertilizer-using State now has an adequate, well administered control law which completely protects the purchasers of all fertilizers.

The Rankin bill H. R. 1824 provides for eight non-conservation authorities similar to TVA.

The Hill bill S. 74 proposes to direct the TVA to formulate a National Fertilizer Policy and also prescribes the method of operation of a superphosphate plant to be built by TVA near Mobile, Alabama.

The Bankhead-Hill-Flannagan bills S. 882 and H. R. 2922, are identical bills to implement the national fertilizer program announced by the American Farm Bureau Federation. Copies of this Farm Bureau program and copies, or complete analyses, of the Farmers Union policy, the TVA policy, the U. S. Department of Agriculture policy, and the booklet of the National Planning Association entitled *Fertilizer in the Post-war National Economy* have been sent to all members separately or with *The NFA News*.

No graver problem ever faced our industry than these many programs and legislative proposals, nearly all of which, to a greater or less degree, include some form of State socialism of our industry and advocate additional competition by the Government in the production and distribution of fertilizer and fertilizer materials. I cannot over-emphasize the seriousness of the situation that confronts us.

For a hundred years the fertilizer industry has furnished the American farmer all the fertilizer he desired and at reasonable prices. Even in the last four years every commercial demand for fertilizer has been met except temporarily in a few local areas, even though a 50 per cent increase of production with little or no increase in production facilities was necessary. There is still surplus capacity. Only diversion of raw materials to munition manufacturers prevented additional production.

Fertilizer prices are the lowest of almost any commodity the farmers buy—only 21 per cent above 1910–1914 average—whereas the average price of all commodities he buys is 75 per cent above the 1910–1914 average. The industry has always met the demand for larger quantities of fertilizers and the new demand of new areas by building additional production facilities when and where necessary. It stands ready to do so now if not faced with Government competition.

There is no necessity for the construction of any fertilizer plants by the Federal Government. Government competition with private enterprise is not consistent with our American way of life. To meet these many proposed invasions of the field of private fertilizer enterprise by subsidized operation by Government Agencies, the fertilizer industry needs a strong and solid front line backed by full ranks. If ever there was need for action, it is now. Our ranks are not full. There are more than 300 fertilizer manufacturers who are not members of the NFA. These non-members are just as seriously affected by these threats against their independence as are you. I urge every member to make every effort to obtain new members for the Association so that a completely effective industry attitude may be presented. The task before the Association and the industry as a whole is an intensive educational and public relations campaign to acquaint the public at large and Government officials and legislators in particular with the facts regarding the use of fertilizer, how the industry has satisfactorily met all its production obligations, has carried sound advice and information to the farmer and stands ready to continue to do so to the end that a proper perspective of the true situation is known.

In my opinion only by such tactics can the ideas and plans of certain elements plotting against our established American ideals be successfully combatted.

I again pledge to our Government that our industry will do everything within our power to furnish increased tonnages of fertilizer for increased production of food crops in the furtherance of the war effort.

Fertilizer Machinery *AND* Acidulating Equipment

BATCH MIXERS — PULVERIZERS — CAGE MILLS — SCREENS — SCALES
ELEVATORS, AND ALL OTHER EQUIPMENT FOR COMPLETE PLANTS

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For Alphabetical List of Advertisers, see page 33.

AMMONIA—Anhydrous and Liquor
Barrett Division, The, Allied Chemical & Dye Corp., New York City.
DuPont de Nemours & Co., E. I., Wilmington, Del.
Hydrocarbon Products Co., New York City.
Nitrogen Products, Inc., New York City

AMMONIUM NITRATE SOLUTIONS
Barrett Division, The, Allied Chemical & Dye Corp., New York City.

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Fulton Bag & Cotton Mills, Atlanta, Ga.
Mente & Co., Inc., New Orleans, La.

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Utility Works, The, East Point, Ga.

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American Agricultural Chemical Co., New York City.
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McIver & Son, Alex. M., Charleston, S. C.
Schmaltz, Jos. H., Chicago, Ill.
Wellmann, William E., Baltimore, Md.

BORAX AND BORIC ACID
American Potash and Chem. Corp., New York City.

BROKERS
Ashcraft-Wilkinson Co., Atlanta, Ga.
Bradley & Baker, New York City.
Dickerson Co., The, Philadelphia, Pa.
Hollingshurst & Co., Inc., New York City
Huber & Company, New York City.
Keim, Samuel D., Philadelphia, Pa.
McIver & Son, Alex. M., Charleston, S. C.
Schmaltz, Jos. H., Chicago, Ill.
Wellmann, William E., Baltimore, Md.

BUCKETS—Elevator
Sackett & Sons Co., The A. J., Baltimore, Md.
Stedman's Foundry and Mach. Works, Aurora, Ind.

BUCKETS—For Hoists, Cranes, etc.
Hayward Company, The, New York City.

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DuPont de Nemours & Co., E. I., Wilmington, Del.

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Huber & Company, New York City.
International Minerals & Chemical Corporation, Chicago, Ill.
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Nitrogen Products, Inc., New York City
Phosphate Mining Co., The, New York City.
Wellmann, William E., Baltimore, Md.

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Stillwell & Gladding, New York City.
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Keim, Samuel D., Philadelphia, Pa.
Phosphate Mining Co., The, New York City.

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International Minerals and Chemical Corporation, Chicago, Ill.
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U. S. Phosphoric Products Division, Tennessee Corp., Tampa, Fla.

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Wellmann, William E., Baltimore, Md.

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Stedman's Foundry and Mach. Works, Aurora, Ind.
Utility Works, The, East Point, Ga.

A Classified Index to Advertisers in "The American Fertilizer"

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For an Alphabetical List of all the Advertisers, see page 33

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Sackett & Sons Co., The A. J., Baltimore, Md.
Stedman's Foundry and Mach. Works, Aurora, Ind.
Utility Works, The, East Point, Ga.

IMPORTERS, EXPORTERS
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Chilean Nitrate Sales Corp., New York City.

NITRATE OF SODA—Continued
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Schmaltz, Jos. H., Chicago, Ill.
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International Minerals & Chemical Corporation, Chicago, Ill.
McIver & Son, Alex. M., Charleston, S. C.
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Southern Phosphate Corp., Baltimore, Md.
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Huber & Company, New York City.
International Minerals & Chemical Corporation, Chicago, Ill.
Schmaltz, Jos. H., Chicago, Ill.
Wellmann, William E., Baltimore, Md.

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United States Potash Co., New York City.

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Nitrogen Products, Inc., New York City
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Wellmann, William E., Baltimore, Md.

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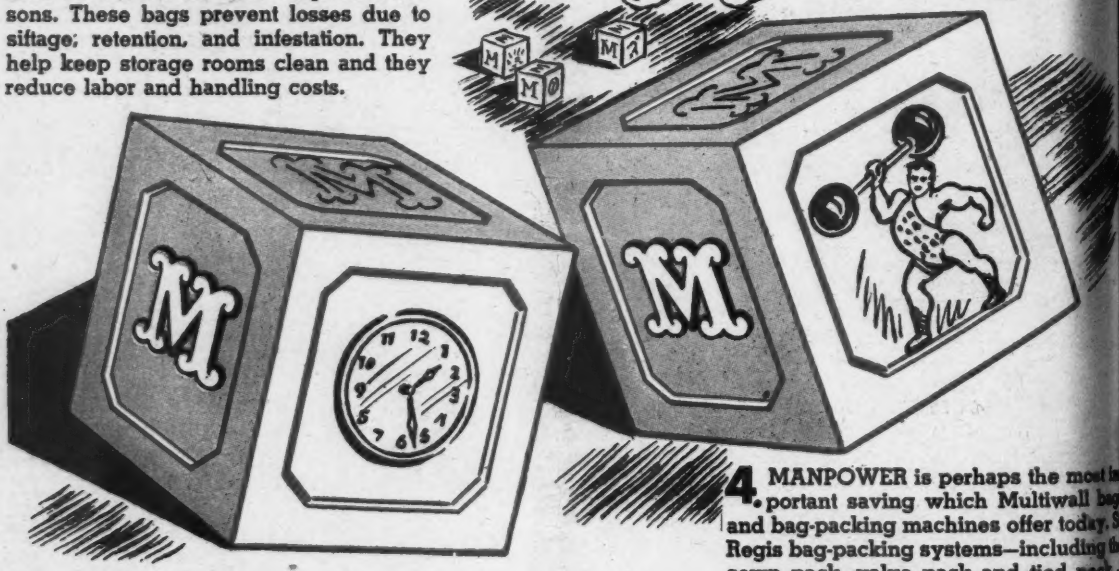

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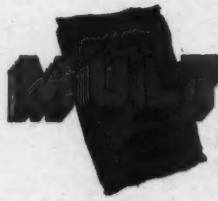

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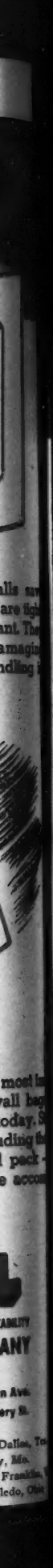
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